Remarks/Arguments

Applicant has received and carefully reviewed the Office Action mailed June 24, 2005, setting a three month shortened statutory period for response ending September 24, 2005. Claims 1, 22, 24 and 33 have been amended. Support for the amendments is found in the specification, claims, and drawings as originally filed at, for example, page 4, lines 2-4, page 5, lines 8-10, and page 6, lines 15-17. No new matter has been added. Claims 1-28, 30, 32, and 33 are pending. Reexamination and reconsideration are respectfully requested.

Allowable Subject Matter

Applicant thanks the Examiner for indicating that claims 3-8 and 13 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Rejections under 35 U.S.C. § 102(b)

Claims 1, 2, 9-12, 14-28, 32, and 33 are rejected as being anticipated by Corrado et al. (US 5,890,085). Applicant respectfully traverses the rejection.

Independent claims 1, 22, and 24 as amended, recite a system and method to determine a most likely position of a moving inanimate object, and the system includes a plurality of sensors that each provide a location of the moving object and a data processor configured to combine the location data and associated sensor uncertainty distributions and generate a value indicative of the most likely position of the moving inanimate object. Corrado et al. do not appear to teach such a system.

Corrado et al. teaches a system of infrared and ultrasound sensors for detecting the presence or absence, orientation, and nature of a passenger in a car seat, and to determine whether or not to disable the air bag system. See column 3, line 48 through column 4, line 5. With regard to inanimate objects, Corrado et al. appear to teach detecting only the presence or absence of that object, not the position of a moving inanimate object, as is presently claimed. Corrado et al. teach detecting a "out-of-position" passenger and discuss determining "longitudinal" motion of a passenger. See

column 11, lines 35-45 and column 14, lines 37-49. Corrado et al. do not, however, provide any motivation or guidance for modifying their system to determine the most likely position of a moving inanimate object. Because the purpose of the Corrado et al. system is to determine whether or not to disable the air bag system in a car based on the presence or absence and orientation of a person, there is no motivation for one to alter the system to determine the position of a moving inanimate object.

Independent claims 28 and 32 recite methods for determine the most likely global position of an object involving receiving, from a plurality of local systems (claim 28) or two or more local systems (claim 32), data on the most likely position of the object, and combining the data from the plurality of local systems or from at least selected local systems, and generating a value indicative of the most likely global position of the object based on the combined data from the multiple systems. Corrado et al. do not appear to teach such methods.

The Examiner asserts that Corrado et al. teach receiving from a plurality of local systems data on the most likely position of an object and combining the data and generating a value indicative of the most likely global position of the object based on that data, referring to figures 23, 13, and 20. Corrado et al. describe FIG. 23 as showing that the dual sensor system provides a very high functional reliability for distinguishing between a front facing occupant and a rear facing child seat. See column 23, lines 53-57. This passage of Corrado et al. is directed to the operation of a single system directed to analyzing the occupant of a single car seat. FIG. 13 of Corrado et al. illustrates the application specific integrated circuit (ASIC), which includes two infrared inputs 21, 22 and an ultrasound signal 19. Corrado et al. teach combining the data from the two infrared inputs and the ultrasound signal to achieve fused features 68. See column 15, lines 54-60. Corrado et al. also teach that the described functions of the ASIC may be contained in two or more ASIC chips, such as analog in one and digital in another. See column 15, lines 25-29. Corrado et al. thus teach that the functions of the ASIC system can be split between two chips, which would result in one chip containing the analog portion of the system and the other chip containing the digital portion of the system. This embodiment, however, would still contain the components for analyzing a single car seat

because the system would involve two infrared sensors and an ultrasound sensor, which Corrado et al. teach are necessary for each system.

Corrado et al. do teach that it is anticipated in the future that rear passenger seats may be equipped with air bags, and in such cases, a sensor unit may be placed to target those seats. See column 14, lines 17-20. Such embodiment could involve two or more sensor systems within the car, however, each system would be directed to determining the presence or absence of a different object in a different seat. The data from each system would not be combined to determine a global position of an object because each system would be directed to determining the presence of a different object in a different car seat. Applicants submit that there is no motivation for one of ordinary skill in the art to modify the system of Corrado et al. to combine data from two or more local systems to determine the most likely position of an object. Additionally, even if one were to combine the data of multiple systems according to Corrado et al., one would not achieve the instant methods. Combining data from multiple systems of Corrado et al. would be essentially meaningless because it would involve combining data regarding the presence or absence of different passengers in two different seats.

Independent claim 33, as amended recites a system for determining the most likely position of an aircraft. Applicants submit that the system of Corrado et al., being directed to determining the presence or absence of a passenger in a car seat does not involve sensors providing a location of an aircraft. Additionally, there is no motivation for one of ordinary skill in the art to modify the car passenger detecting system of Corrado et al. to determine the most likely position of an aircraft.

Corrado et al. do not appear to teach each and every element of the independent claims or the claims dependent thereon. Additionally, Corrado et al. do not provide any motivation or guidance for modifying their system to achieve the claimed invention. Withdrawal of the rejection is respectfully requested.

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Reply to office action dated June 24, 2005

In view of the foregoing, it is believed that all pending claims 1-28, 30, 32 and 33 are in condition for allowance. Issuance of a notice of allowance in due course is respectfully requested. If a telephone conference would be of assistance, please contact the undersigned attorney at 612-359-9348.

Respectfully submitted,

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